

# APPENDIX J: GLOSSARY

## Abbreviations

Act	National Wildlife Refuge System Improvement Act of 1997 (also Improvement Act or NWR SIA)
ADA	Americans with Disabilities Act
AHPA	Archaeological and Historic Preservation Act
ARPA	Archaeological Resources Protection Act
BLM	Bureau of Land Management
CCP	Comprehensive Conservation Plan
CFR	Code of Federal Regulations
CPI	Conservation Priority Index
CSFA	Channeled Scablands Focus Area
EA	Environmental Assessment
EE	Environmental Education
ERU	Ecological Reporting Unit
EWU	Eastern Washington University
FMP	Fire Management Plan
FWS	U.S. Fish and Wildlife Service (also, Service, USFWS)
GAP	Gap Analysis Program
GIS	Geographic Information System
HMP	Habitat Management Plan
IAC	Interagency Committee for Outdoor Recreation (Washington State)
ICBEMP	Interior Columbia Basin Ecosystem Management Project
Improvement Act	National Wildlife Refuge System Improvement Act of 1997(also Act, NWR SIA)
INLT	Inland Northwest Land Trust
MMS	Maintenance Management System
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
N	Nitrogen
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
NWRS	National Wildlife Refuge System
NWRSIA	National Wildlife Refuge System Improvement Act of 1997
P	Phosphorus
PIF	Partners in Flight
PILT	Payment in lieu of taxes.
R1	Region 1 of the FWS (WA, OR, CA, HI, NV, ID)
Refuge.	Turnbull National Wildlife Refuge
RNA	Research Natural Area
RONs	Refuge Operating Needs System
SCORP	Statewide Comprehensive Outdoor Recreation Plan
Service	U.S. Fish and Wildlife Service (also FWS, USFWS)
TES	Threatened and Endangered Species
TLES	Turnbull Laboratory for Ecological Studies
TNC	The Nature Conservancy
TPL	Trust for Public Land
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington State Department of Fish and Wildlife
WPA	Works Projects Administration
WSPRC	Washington State Parks and Recreation Commission

## Glossary

**Adaptive Management.** Refers to a process in which policy decisions are implemented within a framework of scientifically driven experiments to test predictions and assumptions inherent in management plan. Analysis of results help managers determine whether current management should continue as is or whether it should be modified to achieve desired conditions.

**Adjudication of Water Rights.** An adjudication is an administrative or judicial determination of all rights to use water in a particular stream system or watershed to establish the priority, point of diversion, place and nature of use, and the quantity of water used among the various claimants. These stream or watershed adjudications can be initiated by a water user (including the United States) or by the State. The United States may be joined in an adjudication if the requirements of the McCarran Amendment are met. (water rights sec 403 from refuge manual)

**Alluvium.** Sediment transported and deposited in a delta or riverbed by flowing water.

**Alternative.** Alternatives are different means of accomplishing refuge purposes and goals and contributing to the System mission (draft Service Manual 602 FW 1.5). The no action alternative is current refuge management while the action alternatives are all other alternatives.

**Approved Acquisition Boundary.** A National Wildlife Refuge boundary approved by the National or Regional Fish and Wildlife Service Director for potential acquisition of lands by the Service. (R1 Landowner guide, USFWS Division of Refuge Planning)

**Archeology.** The scientific study of material evidence remaining from past human life and culture (Webster's II).

**Basalt.** A dark dense volcanic rock (Webster's II).

**Biological Diversity(also Biodiversity).** The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur (USFWS Manual 052 FW 1. 12B). The System's focus is on indigenous species, biotic communities, and ecological processes.

**Biological Integrity.** Biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms, and communities. (NWRs Biological integrity policy)

**Bisquit and Swale Steppe.** A mosaic of exposed, fractured basalt, small mounds of deeper soils and swales comprised of shallow lithosols found in the uplands of the flood tracts of the Channeled Scablands. (Turnbull CCP / EA, Chapter 3, Section 3.1 )

**Categorical Exclusion.** A category of actions that do not individually or cumulatively have a significant effect on the human environment and have been found to have no such effect in procedures adopted by a Federal agency pursuant to the National Environmental Policy Act (40 CFR 1508.4).

**Channeled Scablands.** A diverse complex of lakes, sloughs and ponds formed by the scouring of catastrophic floods through wind deposited soils and subsequent deposition of glacial outwash sediments plus volcanic ash on portions of the Columbia Plateau. (Turnbull CCP/EA, Chapter 3, Section 3.1)

**Columbia Basin.** The region drained by the Columbia River system.

**Columbia Plateau.** An approximately 80,000 square mile depression in the earth's crust caused by the immense weight of over 200 lava flows piling up in the broad valleys of the Columbia River Basin between 6 and 16 million years ago. (Turnbull CCP/EA, Chapter 3, Section 3.1)

**Compatible Use.** A wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the Mission of the System or the purposes of the refuge (Service Manual 603 FW 3.6). A compatibility determination supports the selection of compatible uses and identifies stipulations or limits necessary to ensure compatibility.

**Comprehensive Conservation Plan.** A document that describes the desired future conditions of the refuge, and provides long-range guidance and management direction for the refuge manager to accomplish the purposes of the refuge, contribute to the mission of the System, and to meet other relevant mandates (Service Manual 602 FW 1.5).

**Consumer surplus.** Consumer surplus represents the amount an individual would be willing to pay for a good or service over and above the asking price. Individuals are often able to enjoy recreational activities at a price that is less than the amount they would be willing to pay. Thus, the consumer surplus measure captures the added benefit consumers gain beyond that reflected in the dollar value of goods and services purchased in the process of participating in these activities (Laughland and Caudill, 1999).

**Contaminants.** or Environmental contaminants - Chemicals present at levels greater than those naturally occurring in the environment resulting from anthropogenic or natural processes that potentially result in changes to biota at any ecological level. (USGS, assessing EC threats to lands managed by USFWS) Pollutants that degrade other resources upon contact or mixing. (Adapted from Webster's II)

**Cooperative Agreement.** This is a simple habitat protection action, and no property rights are acquired. An agreement is usually long term but can be modified by either party. They are most effective in establishing multiple use management of land. An example would be a wildlife agreement on a Corps reservoir.

**Cover Type.** The present vegetation of an area.

**Cultural Resources.** The physical remains, objects, historic records, and traditional lifeways that connect us to our nation's past. (USFWS, Considering Cultural Resources)

**Cultural Resource Inventory.** A professionally conducted study designed to locate and evaluate evidence of cultural resources present within a defined geographic area. Inventories may involve various levels, including background literature search, comprehensive field examination to identify all exposed physical manifestations of cultural resources, or sample inventory to project site distribution and density over a larger area. Evaluation of identified cultural resources to determine eligibility for the National Register follows the criteria found in 36 CFR 60.4 (Service Manual 614 FW 1.7).

**Deciduous.** Describes trees and shrubs which shed all of their leaves each year.

**Disturbance.** Significant alteration of habitat structure or composition. May be natural (e.g., fire) or human-caused events (e.g., aircraft overflight).

**Ecosystem.** A dynamic and interrelating complex of plant and animal communities and their associated non-living environment.

**Ecosystem Management.** Management of natural resources using system-wide concepts to ensure that all plants and animals in ecosystems are maintained at viable levels in native habitats and basic ecosystem processes are perpetuated indefinitely.

**Environmental Assessment.** A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action, alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or finding of no significant impact (40 CFR 1508.9).

**Edaphic.** Resulting from or influenced by the soil rather than the climate. (yourdictionary.com)

**Endangered Species (Federal).** A plant or animal species listed under the Endangered Species Act that is in danger of extinction throughout all or a significant portion of its range.

**Endangered Species (State).** A plant or animal species in danger of becoming extinct or extirpated in Washington within the near future if factors contributing to its decline continue. Populations of these species are at critically low levels or their habitats have been degraded or depleted to a significant degree.

**Environmental Education Facility.** A building with one or more classrooms and environmental education materials to accommodate groups of students.

**Environmental Education Field Sites.** Outdoor locations where groups of students receive hands-on environmental education.

**Environmental Health.** Composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment. (NWRS Biological integrity policy)

**Enhancement.** Improvement, especially for the benefit of habitats and/or species.

**Expanded Refuge boundary.** Proposed new Approved Refuge Boundary for potential land acquisition.

**Finding of No Significant Impact (FONSI).** A document prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, that briefly presents why a Federal action will have no significant effect on the human environment and for which an environmental impact statement, therefore, will not be prepared (40 CFR 1508.13).

**GAP analysis.** Analysis done to identify and map elements of biodiversity that are not adequately represented in the nation's network of reserves. It provides an overview of the distribution and conservation status of several components of biodiversity, with an emphasis on vegetation and terrestrial vertebrates. (Cassidy et al.1997)

**Goal.** Descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units (Draft Service Manual 620 FW 1.5).

**Guild.** Or wildlife guild - an aggregation of species that tend to utilize resources for both feeding and reproduction in a similar manner. (Turnbull NWR Habitat Management Plan)

**Habitat.** Suite of existing environmental conditions required by an organism for survival and reproduction. The place where an organism typically lives.

**Habitat Connectivity (Also Landscape Connectivity).** The arrangement of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of appropriate vegetation. The opposite of fragmentation. (Turnbull NWR Habitat Management Plan)

**Habitat Management Plan.** A plan that guides refuge activities related to the maintenance, restoration, and enhancement of habitats for the benefit of wildlife, fish, and plant populations.

**Habitat Restoration.** Management emphasis designed to move ecosystems to desired conditions and processes, and/or to healthy ecosystems.

**Headquarters.** An administrative center. (Webster's II)

**Historic Conditions.** Composition, structure, and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgment, were present prior to substantial human related changes to the landscape. (NWRS Biological integrity policy)

**Hydrologic influence.** Having an effect on water quality and quantity. In this document much of the study area was selected for its hydrologic influence on the Refuge's wetlands.

**Hydrology.** A science dealing with the properties, distribution, and circulation of water on and below the earth's surface and in the atmosphere. (yourdictionary.com)

**IMPLAN.** (MicroIMPLAN - Impact Analysis for Planning) An economic analysis tool designed by the U.S. Forest Service and owned and maintained by the Minnesota IMPLAN group. IMPLAN is used by many state and federal planning agencies to evaluate the economic impact of policy choices.

**Indicator.** Something that serves as a sign or symptom. (Webster's II)

**Inholding.** Refers to lands within an Approved Refuge Boundary for a refuge, that are not owned by the Fish and Wildlife Service. These can be private lands or lands owned by city, county, state, or other federal agencies.

**Interpretation.** A teaching technique that combines factual information with stimulating explanation. (yourdictionary.com) Frequently used to help people understand natural and cultural resources.

**Interpretive Trail.** A trail with informative signs, numbered posts that refer to information in a brochure, or where guided talks are conducted for the purpose of providing factual information and stimulating explanations of what visitors see, hear, feel, or otherwise experience while on the trail.

**Issue.** Any unsettled matter that requires a management decision (e.g., a Service initiative, opportunity, resource management problem, a threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition) (Draft Service Manual 602FW 1.5).

**Land Protection.** The acquisition of fee-title, easement, or lease of a given land parcel to protect important natural resource values on the land from incompatible land uses.

**Landform.** A natural feature of a land surface (yourdictionary.com)

**Landscape linkages.** Landscape features linking areas of similar habitat. Plants and smaller animals are able to use landscape linkages to move between larger landscape blocks over a period of generations. (Turnbull Habitat Management Plan)

**Limnology.** The scientific study of bodies of freshwater such as lakes. (yourdictionary.com)

**Lithic Debris Scatter.** Flakes and fragments of cryptocrystalline silica, or sometimes basalt and obsidian, indicating the manufacture of projectile points, scattered about a site that probably represents a temporary Native American campsite. (adapted from Holstine et. al.)

**Lithosols.** A shallow soil without zonation and consisting of imperfectly weathered rock fragments. ((Turnbull Habitat Management Plan)

**Loess.** Soils that are the result of wind deposition. (Turnbull Habitat Management Plan)

**Maintenance.** The upkeep of constructed facilities, structure and capitalized equipment necessary to realize the originally anticipated useful life of a fixed asset. Maintenance includes preventative maintenance; cyclic maintenance; repairs; replacement of parts, components, or items of equipment, periodic condition assessment; periodic inspections, adjustment, lubrication and cleaning (non-janitorial) of equipment; painting, resurfacing, rehabilitation; special safety inspections; and other actions to assure continuing service and to prevent breakdown.

**Maintenance Management System (MMS).** A national database of refuge maintenance needs and deficiencies. It serves as a management tool for prioritizing, planning, and budgeting purposes. (RMIS descriptions)

**Migration.** The seasonal movement from one area to another and back.

**Migratory birds.** Those species of birds listed under 10.13 of 50 CFR chapter 1. USFWS, DOI. (11/23/2001 draft policy).

**Mission Statement.** Succinct statement of a unit's purpose and reason for being.

**Monitoring.** The process of collecting information to track changes of selected parameters over time.

**National Environmental Policy Act of 1969.** Requires all Federal agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documents to facilitate better environmental decision making (from 40 CFR 1500).

**Native.** With respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem. (NWRs Biological integrity policy)

**National Register of Historic Places.** The Nation's master inventory of known historic properties administered by the National Park Service. Includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archeological, or cultural significance at the national, state, and local levels. (USFWS, Considering Cultural Resources)

**National Wildlife Refuge.** A designated area of land, water, or an interest in land or water within the System.

**National Wildlife Refuge System.** Various categories of areas administered by the Secretary of the Interior for the conservation of fish and wildlife, including species threatened with extinction; all lands, waters, and interests therein administered by the Secretary as wildlife refuges; areas for the protection and conservation of fish and wildlife that are threatened with extinction; wildlife ranges; games ranges; wildlife management areas; or waterfowl production areas.

**National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).** A federal law that amended and updated the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668).

**Non-attainment areas.** A geographic area that is not in compliance with the National Ambient Air Quality Standards for a particular pollutant. (Turnbull Habitat Management Plan)

**Non-consumptive recreation.** Recreational activities that do not involve harvest, removal or consumption of fish, wildlife or other natural resources.

**Noxious Weed.** A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive or difficult to manage; parasitic; a carrier or host of serious insect or disease; or non-native, new, or not common to the United States, according to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or had adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

**Nutrient Loading.** The presence of nutrients such as nitrogen and phosphorus in waterways which cause algal blooms and oxygen depletion with potentially lethal effects on fish and other wildlife species.

**Objective.** An objective is a concise target statement of what will be achieved, how much will be achieved, when and where it will be achieved, and who is responsible for the work. Objectives are derived from goals and provide the basis for determining management strategies. Objectives should be attainable and time-specific and should be stated quantitatively to the extent possible. If objectives cannot be stated quantitatively, they may be stated qualitatively (Draft Service Manual 602 FW 1.5).

**Operations.** Activities related to the normal performance of the functions for which a facility or item of equipment is intended to be used. Costs such as utilities (electricity, water, sewage) fuel, janitorial services, window cleaning, rodent & pest control, upkeep of grounds, vehicle rentals, waste management, and personnel costs for operating staff are generally included within the scope of operations.

**Outreach.** The process of providing information to the public on a specific issue through the use of the media, printed materials, and presentations. (Turnbull Habitat Management Plan)

**Pacific Flyway.** One of several major north-south travel corridors for migratory birds. The Pacific Flyway is west of the Rocky Mountains.

**Palouse (Prairie) Steppe.** Open grassland habitat found on both the rolling palouse hills and the bisquit and swale landform of the Channeled Scablands.

**Payment in Lieu of Taxes (PILT).** See Revenue Sharing.

**Piezometer Well.** A hollow tube placed in the ground that allows measurement of the height of the water table. Often times fitted with an automated depth recorder.

**Planning Team.** The primary U.S. Fish and Wildlife staff and others who played a key role in developing and writing the CCP

**Plant Association.** A classification of plant communities based on the similarity in dominants of all layers of vascular species in a climax community.

**Plant Community.** An assemblage of plant species unique in its composition; occurs in particular locations under particular influences; a reflection or integration of the environmental influences on the site such as soils, temperature, elevation, solar radiation, slope, aspect, and rainfall; denotes a general kind of climax plant community (e.g., ponderosa pine).

**Playa Lake.** (Referring to Stubblefield lake). A level area at the bottom of a desert basin that is at times covered with water. (Webster's II)

**Prairie Potholes.** Permanent and seasonal wetlands formed by glacial activities of the last ice age (12-15,000 years ago). The prairie pothole region is a large area that extends from south central Canada into the north central United States.

**Preferred Alternative.** This is the alternative determined [by the decision maker] to best achieve the Refuge purpose, vision, and goals; contributes to the Refuge System mission, addresses the significant issues; and is consistent with principles of sound fish and wildlife management.

**Priority Public Uses.** Hunting, fishing, wildlife observation and photography, environmental education and interpretation were identified by the National Wildlife Refuge system Improvement Act of 1997 as the six priority public uses of the National Wildlife Refuge System.

**Priority Species.** Fish and wildlife species that the Washington Department of Fish and Wildlife believe require protective measures and/or management guidelines to ensure their perpetuation. Priority species include the following: (1) State-listed and candidate species; (2) species or groups of animals susceptible to significant population declines within a specific area or statewide by virtue of their inclination to aggregate (e.g., seabird colonies); and (3) species of recreation, commercial, and/or tribal importance.

**Public.** Individuals, organizations, and groups; officials of Federal, State, and local government agencies; Indian tribes; and foreign nations. It may include anyone outside the planning team. It includes those who may or may not have indicated an interest in Service issues and those who may be affected by Service decisions.

**Public Use Area.** A designated area within the Turnbull NWR which is open to the public year-round. All trails and facilities with the exception of those associated with Columbia Plateau trail are within the public use area.

**Pyrolitic.** Heat induced, as in changes caused by a fire.

**Raptor.** A category of carnivorous birds, most of which have heavy, sharp beaks, strong talons, and take live prey (e.g., peregrine falcon, bald eagle).

**Refuge Operating Needs System (RONS).** A national database of unfunded refuge operating needs required to meet and/or implement station goals, objectives, management plans, and legal mandates. It is used as a planning, budgeting, and communication tool describing funding and staffing needs of the Refuge System. (RMIS descriptions)

**Refuge Purpose(s).** The purpose(s) specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, a refuge unit, or refuge subunit (Draft Service Manual 602 EW 1.5).

**Refuge Vicinity.** This is an area that was not specifically outlined, but generally extends outside the refuge for approximately 5-7 miles in each direction. (CCP/EA, Chapter 1)

**Research Natural Area.** A federal land designation that establishes areas with predominantly natural conditions and processes for research and educational purposes.

**Restoration.** The act of bringing back to a former or original condition. (Webster's II)

**Revenue Sharing.** Service payments (government lands are exempt from taxation) made to counties in which national wildlife refuges reside. These payments may be used by the counties for any governmental purpose such as, but not limited to, roads and schools. (USFWS Revenue sharing pamphlet).

**Riparian.** Refers to an area or habitat that is transitional from terrestrial to aquatic ecosystems; including streams, lakes wet areas, and adjacent plant communities and their associated soils which have free water at or near the surface; an area whose components are directly or indirectly attributed to the influence of water; of or relating to a river; specifically applied to ecology, "riparian" describes the land immediately adjoining and directly influenced by streams. For example, riparian vegetation includes any and all plant life growing on the land adjoining a stream and directly influenced by the stream.

**Seral.** Of or relating to an ecological sere; a seral stage. (yourdictionary.com)

**Site index.** Refers to the ability of a particular site to grow trees. A high site index indicates that trees will grow faster and become larger than an area with a low site index.

**Songbirds (Also Passerines).** A category of birds that are medium to small, perching landbirds. Most are territorial singers and migratory.

**Step-down Management Plans.** Step-down management plans provide the details necessary to implement management strategies identified in the Comprehensive Conservation Plan (Draft Service Manual 602 FW 1.5).

**Steppe.** Arid land dominated by shrubs and grasses where soil and moisture limit the growth of trees. (Turnbull Habitat Management Plan)

**Stewardship Area.** Each of the Alternatives in this CCP/EA has a delineated area where the Service will develop partnerships, provide information, and otherwise encourage private landowners to participate in land and water conservation practices.

**Strategy.** A specific action, tool, or technique or combination of actions, tools, and techniques used to meet unit objectives ( Service Manual 602 FW 1.5).

**Stratum.** A horizontal layer, as one of a number of layers of rock of the same kind. (Webster's II)

**Study Area.** The area reviewed in detail for wildlife, habitat, and public use potential. For purposes of this Draft CCP/EA the Study Area includes the lands within the currently Approved Refuge Boundary and adjacent lands that were studied or analyzed in terms of hydrology, habitat quality, recreation, and land use. See Chapter 1, section 1.4 for more details.

**Subwatershed.** A division within a larger watershed, drained by a stream and its tributaries.

**Threatened Species (Federal).** Species listed under the Endangered Species Act that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

**Threatened Species (State).** A plant or animal species likely to become endangered in Washington within the near future if factors contributing to population decline or habitat degradation or loss continue.

**Threshold.** The lowest level or intensity at which a stimulus is perceptible or can produce an effect. (Webster's II) This term is sometimes used in connection with monitoring the effects of public uses on natural resources.

**Vegetation Type (Also Habitat Type, Forest Cover Type).** A land classification system based upon the concept of distinct plant associations.

**Viewpoint.** A designated point that provides an opportunity to see wildlife or habitats of interest. The point may or may not be "supported" with an interpretive sign. Usually the viewpoint is supported by a pullout or a parking area. (CCP Team definition, 9/10/02)

**Visitor Center.** A building and staff which provide visitors with interpretation, education, and general information about the natural and cultural resources of the refuge and the local area.

**Visitor Contact Point or Center.** An kiosk or other location where visitors may go to learn about refuge resources, facilities, trails etc.

**Vision Statement.** A concise statement of the desired future condition of the planning unit, based primarily upon the System mission, specific refuge purposes, and other relevant mandates ( Service Manual 602 FW 1.5).

**Watershed.** The region or area drained by a river system or other body of water. (Webster's II) See also subwatershed.

**Wetlands.** Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water at some time during the growing season of each year. (Service Manual 660 FW 2) **Permanent wetland** - a wetland basin or portion of a basin that is covered with water throughout the year in all years except extreme drought. Typically the basin bottom is vegetated with submerged aquatic plant species including milfoil, coontail, and pondweeds. **Semi-permanent wetland** - a wetland basin or portion of a basin where surface water persists throughout the growing season of most years. Typical vegetation is composed of cattails and bulrushes. **Seasonal wetland** - a wetland basin or portion of a basin where surface water is present in the early part of the growing season but is absent by the end of the season in most years. Typically vegetated with sedges, rushes, spikerushes or burreed. (Turnbull Habitat Management Plan)

**Wildlife-dependent recreation.** Hunting, fishing, wildlife observation and photography, environmental education and interpretation. These are also referred to as the priority public uses of the National Wildlife Refuge System.